



Materials Declaration Form

IPC Form Type *	1752 Distribute	Version	2
Sectionals *	Material Info Manufacturing Info	Sectionals *	A-D <i>* : Required Field</i>

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2017-10-26
Company Unique ID	NL 008751171801		
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Contact Phone *	Refer to Supplier Comment section	Contact Email *	Refer to Supplier Comment section
Authorized Representative *	Floriana SAN BIAGIO	Representative Title	AMG MD CHAMPION
Representative Phone *	Refer to Supplier Comment section	Representative Email *	Refer to Supplier Comment section
Supplier Comment	Online Technical Support - STMicroelectronics : http://www.st.com/web/en/support/support.html		

Uncertainty Statement

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Legal Statement

Supplier Acceptance *	true	Legal Declaration *	Standard
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Legal Statement

Supplier certifies that it gathered the provided information and such information is true and correct to the best of its knowledge and belief, as of the date that Supplier completes this form. Supplier acknowledges that Company will rely on this certification in determining the compliance of its products. Company acknowledges that Supplier may have relied on information provided by others in completing this form, and that Supplier may not have independently verified such information. However, in situations where Supplier has not independently verified information provided by others, Supplier agrees that, at a minimum, its suppliers have provided certifications regarding their contributions to the part(s), and those certifications are at least as comprehensive as the certification in this paragraph. If the Company and the Supplier enter into a written agreement with respect to the identified part(s), the terms and conditions of that agreement, including any warranty rights and/or remedies provided as part of that agreement, will be the sole and exclusive source of the Supplier's liability and the Company's remedies for issues that arise regarding information the Supplier provides in this form.

Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
	DYWY*N6VAA0Y	A	ZS1A	2017-10-26
Amount	UoM	Unit type	ST ECOPACK Grade	
16.38	mg	Each	ECOPACK® 3	
	Comment	ECOPACK® 3 is STMicroelectronics trade name for ROHS compliant device without use of any ROHS exemption and without Halogen nor Antimony		

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		 life.augmented
1	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SOT	2.9x1.6x1.05	5	gull wing	
Comment	Package: WY SOT 23-5; MDF valid for STWD100YNPWY3F			

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-April 2015	
Query	Response
1 - Product(s) meets EU RoHS requirement without any exemptions	TRUE
2 - Product(s) meets EU RoHS requirements except lead in solder and this usage may qualify under the lead in solder '7b' exemption (other selected exemptions may apply)	FALSE
3 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)	FALSE
4 - Product(s) does not meet EU RoHS requirements and is not under exemptions	FALSE
Exemption Id.	Description

QueryList : REACH-7th July 2017				
Query				Response
1 - Product(s) does not contain REACH Substances Of Very High Concern above the limits per the definition within REACH				true
CategoryLevel_Name	CategoryLevel_Threshold	amount in product (mg)	Application	ppm in product

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	DYWY*NGVAA0Y				5000000.0	999817.0
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die	M-011 Other inorganic materials	0.235	mg	supplier	die	Silicon (Si)	7440-21-3		0.227	mg	965957	13858
				supplier	metallization	Aluminium (Al)	7429-90-5		0.002	mg	8511	122
				supplier	metallization	Titanium (Ti)	7440-32-6		0.001	mg	4255	61
				supplier	Passivation	Silicon Nitride	12033-89-5		0.001	mg	4255	61
				supplier	Passivation	Silicon Oxide	7631-86-9		0.004	mg	17021	244
Leadframe	M-004 Copper and its alloys	6.794	mg	supplier	alloy	Copper (Cu)	7440-50-8		6.983	mg	960787	426313
				supplier	alloy	Iron (Fe)	7439-89-6		0.175	mg	24078	10684
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.002	mg	275	122
				supplier	alloy	Zinc (Zn)	7440-66-6		0.010	mg	1376	611
				supplier	metallization	Nickel (Ni)	7440-02-0		0.090	mg	12383	5495
	M-006 Nickel and its alloys			supplier	metallization	Palladium (Pd)	7440-05-3		0.007	mg	963	427
	M-008 Precious metals			supplier	metallization	Gold (Au)	7440-57-5		0.001	mg	138	61
	M-008 Precious metals			supplier	metallization	Gold (Au)	7440-57-5		0.001	mg	138	61
Die attach	Other inorganic materials	0.078	mg	supplier	glue	Silver (Ag)	7440-22-4		0.060	mg	722892	3663
				supplier	glue	methylene diacrylate	42594-17-2		0.014	mg	168675	855
				supplier	glue	Dicyclopentenyloxyethyl methacrylate	68586-19-6		0.003	mg	36145	183
				supplier	glue	Bismaleimide resin	35325-39-4		0.003	mg	36145	183
				supplier	glue	Palladium (Pd)	7440-05-3		0.001	mg	12048	61
				supplier	glue	Dicumyl peroxide	80-43-3		0.002	mg	24096	122
	M-008 Precious metals	0.154	mg	supplier	wire	Gold (Au)	7440-57-5		0.165	mg	1000000	10073
	encapsulation	M-015 Other organic materials	8.789	mg	supplier	mold compound	Epoxy Resin	29690-82-2		0.372	mg	43125
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		0.140	mg	16230	8547
				supplier	mold compound	Phenol resin	25068-38-6		0.388	mg	44980	23687
				supplier	mold compound	Silica	60676-86-0		7.536	mg	873638	460073
				supplier	mold compound	Carbon black	1333-86-4		0.017	mg	1971	1038
				supplier	mold compound	Zinc hydroxide	20427-58-1		0.173	mg	20056	10562